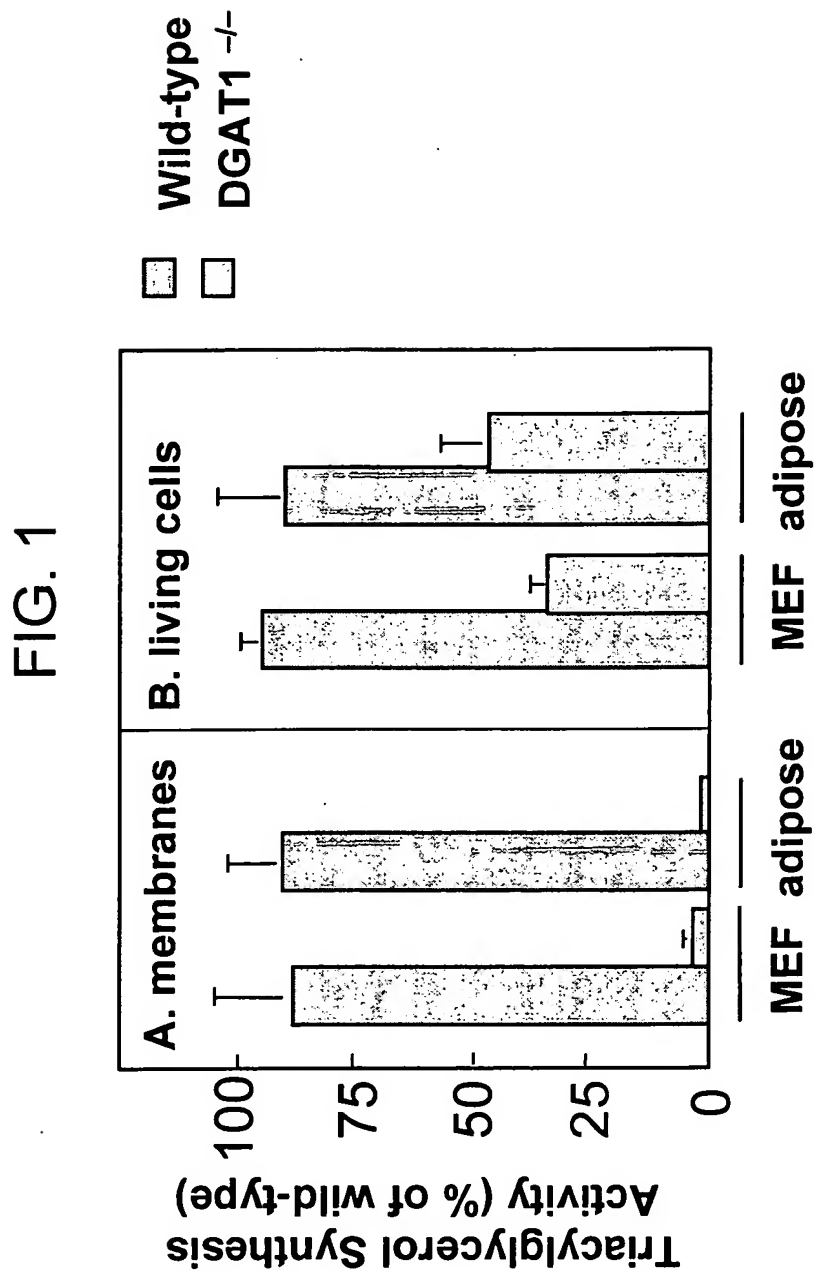


Paula A. Borden
Bozicevic, Field & Francis
200 Middelfield Rd. Suite 200
Menlo Park, CA 94025
Phone: (650) 327-3400
Fax: (650) 327-3232

Express Mail No. EV036410356US
Filed: 1/14/02
For: "Mono- and Diacylglycerol Acyltransferases
and Methods of Use Thereof"
(19) Drawing pages



Paula A. Borden
Bozicevic, Field & Francis
200 Middelfield Rd. Suite 200
Menlo Park, CA 94025
Phone: (650) 327-3400
Fax: (650) 327-3232

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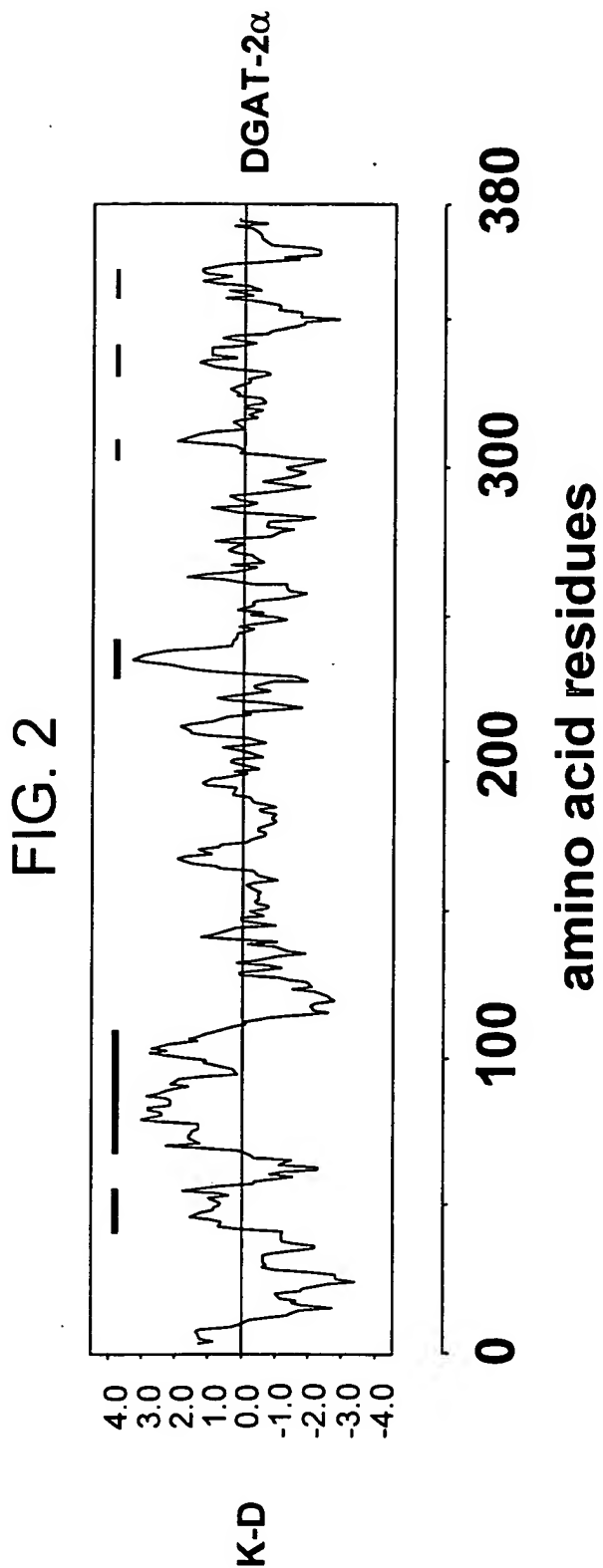


FIG. 3A

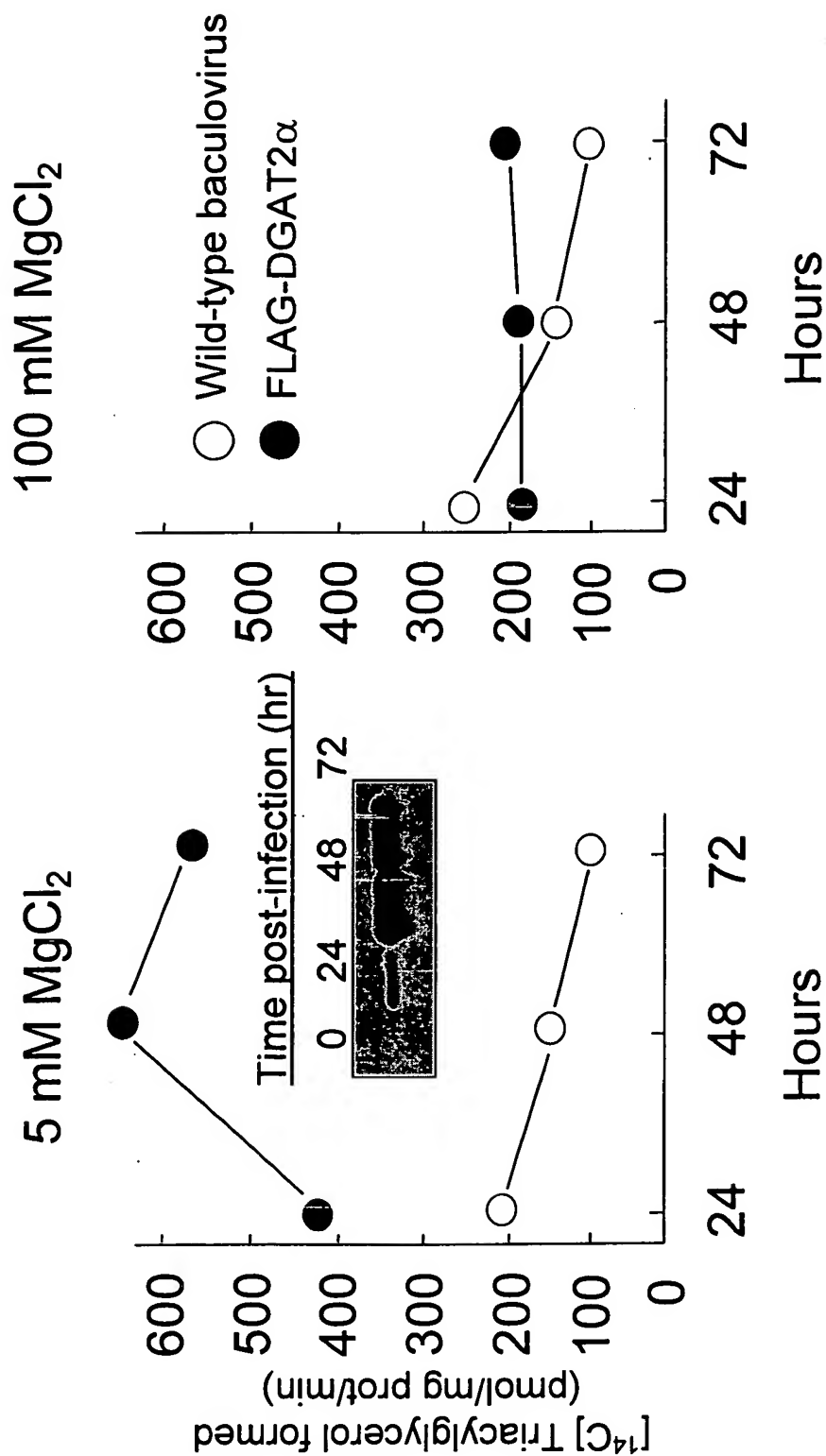


FIG. 3B
B. DGAT2 α activity as a function of
Diacylglycerol

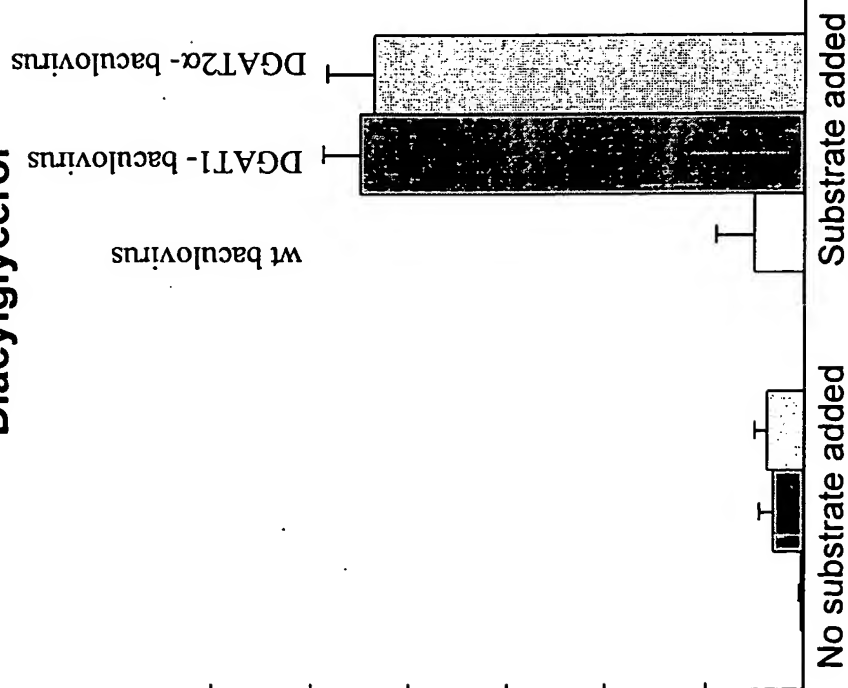


FIG. 3C
C. DGAT2 α activity as a function of
Oleoyl Coenzyme A

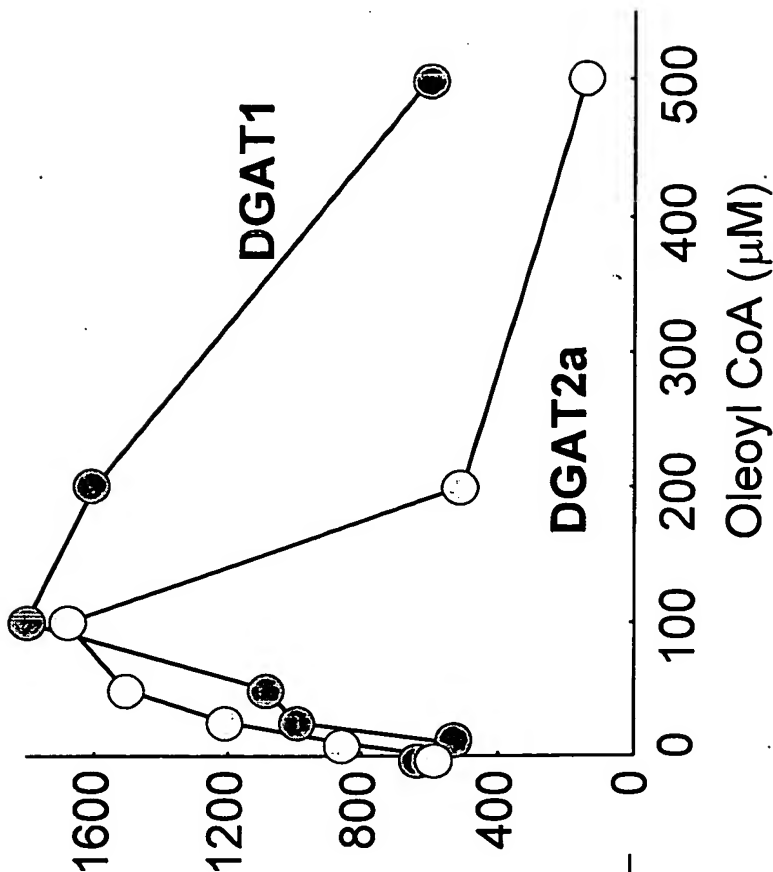


FIG. 4
A. Tissue distribution of human DGAT2 α

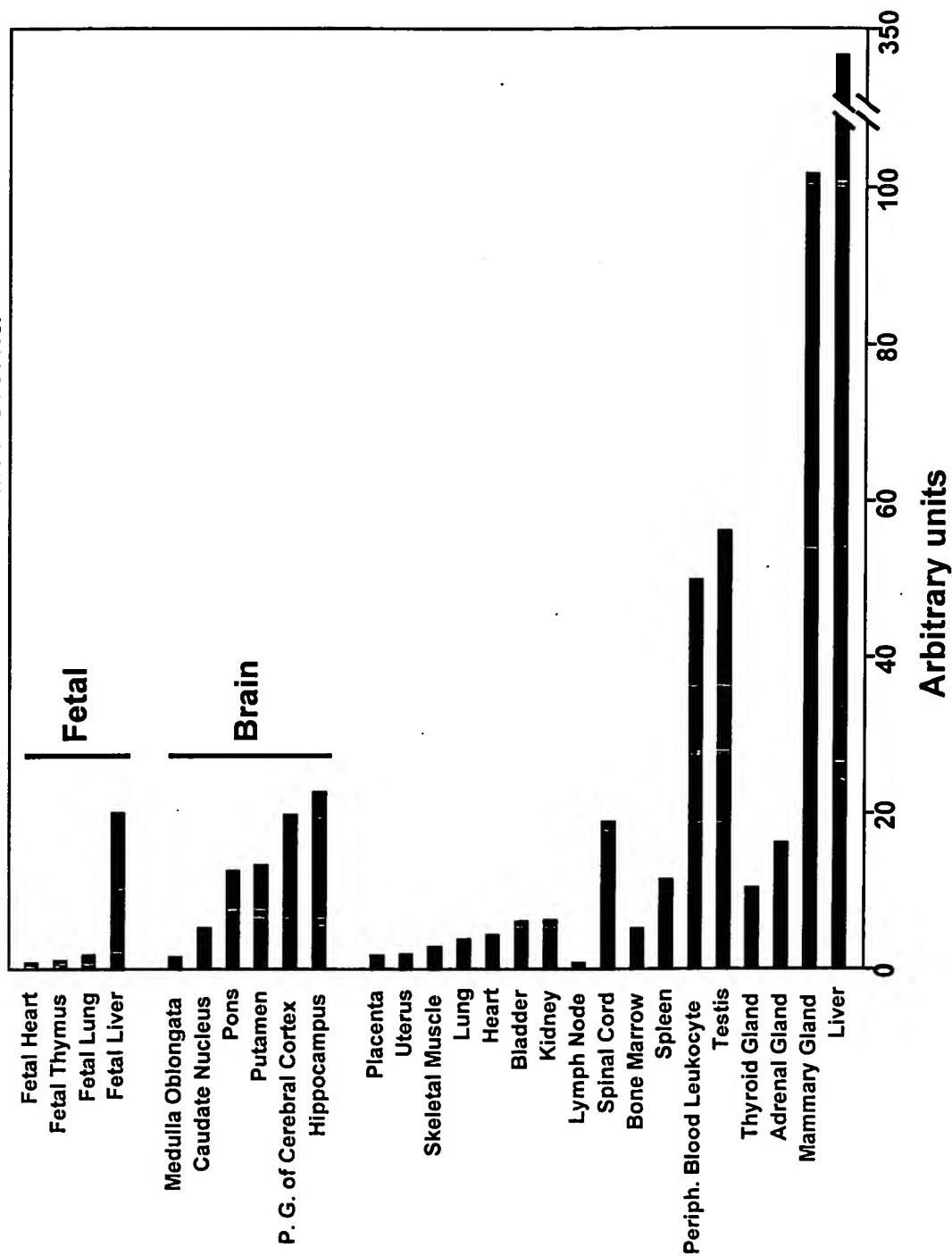


FIG. 5

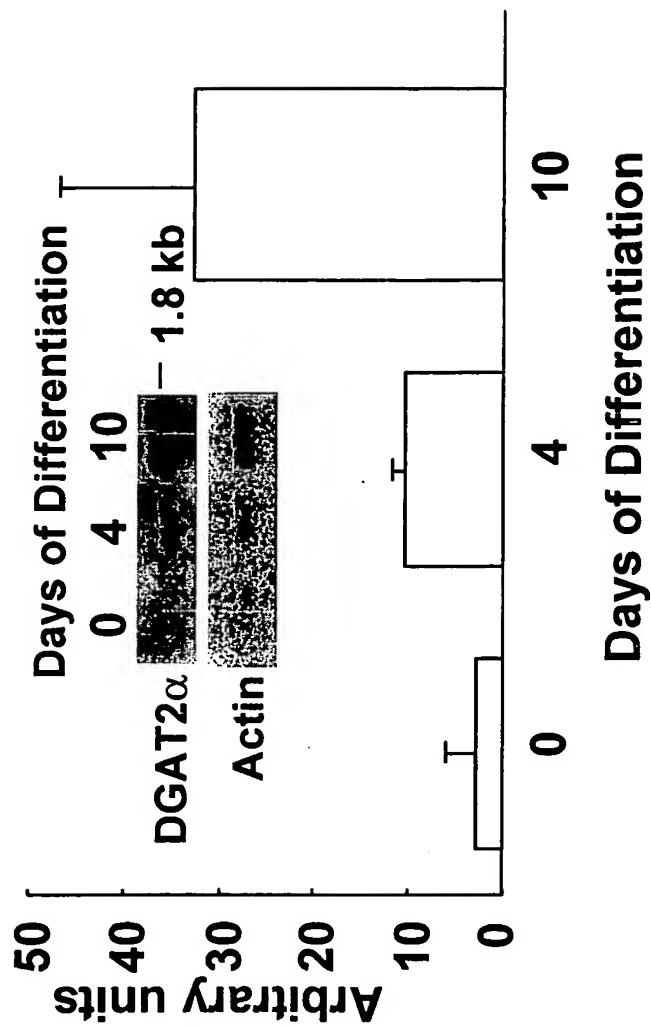


FIG. 6A

Mouse DGAT2 α amino acid sequence

MKTLIAAYSGVLRGERRAELPAAKNKNKGSALSREGSGRWGTGSSILSALQDIFSVTLNRSKVEKQLQV
ISVLQWVLSFLVLGVACSVILMYTFCTDCWLIAVLYFTWLAFDWNTPKKGGRRSQWVRNWAVWRYFRDYF
PIQLVKTHNLLTTRNYIFGYHPHGIMGLGAFCNFSTEATEVSKKFPGIRPYLATLAGNFRMPVLREYLMS
GGICLVNRDTIDYLLSKNGSGNAIIIVVGGAESLSSMPGKNAVTLKNRKGFVKLALRHGADLVPTYSFG
ENEVYKQVIFEESWGRWVKFKQYIGFAPCIFHGRGLFSSDTWGLVPYSKPITTVVGEPITVPKLEHPT
QKDIDLYHAMYMEALVKLFDNHNKTKFGLPETEVLEVN (SEQ ID NO: 04)

FIG. 6B

Mouse DGAT2 α nucleic acid sequence

ATGAAGACCCTCATCGCCGCTACTCCGGGGTCTGCGGGGTGAGCGTCGGGCGGAAGCTGCCCCGAGCGAA
AACAAGAATAAAGGATCTGCCCTGTACGCGAGGGGTCTGGGCGATGGGGCACTGGCTCCAGCATCCTCTCA
GCCCTCCAAGACATCTTCTCTGTACCTGGCTCAACAGATCYAAGGTGGAAAAACAGCTGCAGGTCATCTCA
GTACTACAATGGGTCTATCCTTCTGGTGCTAGGAGTGGCCTGCAGTGTTCATCTCATGTACACCTTCTGC
ACAGACTGCTGGCTGATAGCTGTGCTCTACTTCACCTGGCTGGCATTGACTGGAAACACGCCCCAAGAAAGGT
GGCAGGAGATCGCAGTGGGTGCGAAACTGGGCGGTGTGGCGCTACTTCCGAGACTACTTTCCCATCCAGCTG
GTGAAGACACACAACCTGCTGACCACCAGGAACTATATCTTTGGATACCACCCCCATGGCATCATGGGCCCTG
GGTGCCCTTCTGTAACTTCAGCACAGAGGCTACTGAAGTCAGCAAGAAGTTTCTGGCATAAGGCCCTATTTG
GCTACGTTGGCYGGTAACTTCCGGATGCCTGTGCTTCGCGAGTACCTGATGTCTGGAGGCATCTGCCCTGTC
AACCGAGACACCATAGACTACTTGCTCTCCAAGAATGGGAGTGGCAATGCTATCATCATCGTGGTGGGAGGT
GCAGCTGAGTCCCTGAGCTCCATGCCTGGCAAGAACGCAGTCACCCTGAAGAACCGCAAAGGCTTTGTGAAG
CTGGCCCTGCGCCATGGAGCTGATCTGGTTCCCACTTATTCTTTGGAGAGAATGAGGTATACAAGCAGGTG
ATCTTTGAGGAGGGTTCTTGGGGCCGATGGGTCCAGAAGAAGTTCCAGAAGTATATTGGTTTCGCCCCCTGC
ATCTTCCATGGCCGAGGCCTCTTCTCTCTGACACCTGGGGGCTGGTGCCCTACTCCAAGCCCATCACCACC
GTCGTGGGGGAGCCCATCACTGTCCCCAAGCTGGAGCACCCGACCCAGAAAGACATCGACCTGTACCATGCC
ATGTACATGGAGGCCCTGGTGAAGCTCTTTGACAATCACAAGACCAAATTTGGCCTNCCAGAGACTGAGGTG
CTGGAGGTGAACTGA (SEQ ID NO: 03)

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FIG. 7A

Human DAGT2 α amino acid sequence

MKTLIAAYSGVLRGERQAEADRSQRSHGGPALSREGSGRWGTGSSILSALQDLFSVTWLNRSKVEKQLQV
ISVLQWVLSFLVLGVACSAILMYIFCTDCWLIAVLYFTWLVDWNTPKKGRRSQWVRNWAVWRYFRDYF
PIQLVKTHNLLTTRNYIFGYHPHGIMGLGAFCNFSTEATEVSKKFPGIRPYLATLAGNFRMPVLREYLMS
GGICPVSRDTIDYLLSKNGSGNAIIIVVGAAESLSMPGKNAVTLNRKGFVKLALRHGADLVPIYSFG
ENEVYKQVIFEEGSWGRWVQKKFQKYIGFAPCIFHGRGLFSSDTWGLVPYSKPITTVVGEPITIPKLEHP
TQQDIDLYHTMYEALVKLFDKHKTKFGLPETEVLEVN (SEQ ID NO:02)

FIG. 7B

Human DAGT2 α nucleic acid sequence

TTCAGCCATGAAGACCTCATAGCCGCCTACTCCGGGGTCTGCGCGGCGAGCGTCAGGCCGAGGCTGACCG
GAGCCAGCGCTCTCACGGAGGACCCGTGTCGCGCGAGGGGTCTGGGAGATGGGGCACTGGATCCAGCATCCT
CTCCGCCCTCCAGGACCTCTTCTCTGTCACTGGCTCAATAGGTCCAAGGTGGAAAAGCAGCTACAGGTCAT
CTCAGTGCTCCAGTGGGTCTGTCTTCTTGTACTGGGAGTGGCCTGCAGTGCCATCCTCATGTACATATT
CTGCACTGATTGCTGGCTCATCGCTGTGCTCTACTTCACTTGGCTGGTGTGTTGACTGGAACACACCCAAGAA
AGGTGGCAGGAGGTACAGTGGGTCCGAAACTGGGCTGTGTGGCGCTACTTTCGAGACTACTTCCCATCCA
GCTGGTGAAGACACACAACCTGCTGACCACCAGGAATAATCTTTGGATACCACCCCATGGTATCATGGG
CCTGGGTGCCTTCTGCAACTTCAGCACAGAGGCCACAGAAGTGAGCAAGAAGTTCACAGGCATACGGCCTTA
CCTGGCTACACTGGCAGGCAACTTCCGAATGCCTGTGTTGAGGGAGTACCTGATGTCTGGAGGTATCTGCCC
TGTCAGCCGGGACACCATAGACTATTTGCTTTCAAAGAATGGGAGTGGCAATGCTATCATCATCGTGGTCGG
GGGTGCGGCTGAGTCTCTGAGCTCCATGCCTGGCAAGAATGCAGTCACCCTGCGGAACCGCAAGGGCTTGT
GAAACTGGCCCTGCGTCATGGAGCTGACCTGGTTCCTATCTACTCCTTTGGAGAGAATGAAGTGACAAGCA
GGTGATCTTCGAGGAGGGCTCCTGGGGCCGATGGGTCCAGAAGAAGTTCAGAAATACATTGGTTTCGCCCC
ATGCATCTTCCATGGTCGAGGCCTCTTCTCCTCCGACACCTGGGGGCTGGTGCCCTACTCCAAGCCCATCAC
CACTGTTGTGGGAGAGCCCATCACCATCCCCAAGCTGGAGCACCCAACCCAGCAAGACATCGACCTGTACCA
CACCATGTACATGGAGGCCCTGGTGAAGCTCTTCGACAAGCACAAGACCAAGTTCGGCCTCCCGGAGACTGA
GGTCCTGGAGGTGAACTGAGCCAGCCTTCGGGGCCAATTCCCTGGAGGAACCAGCTGCAAATCACTTTTTTG
CTCTGTA (SEQ ID NO:01)

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FIG. 8A

Mouse DC2 amino acid sequence

MMVEFAPLNTPLARCLQTA AVLQWVLSFLLLQVCIGIMVMLVLYNYWFLYIPYLVWFYDWRTP EQQGR
RWNWVQSWPVWKYFKEYFPICLVKTDLDLDPGHNYIFGFHPHGIFVPGA FGNFCTKYSDFKLFPGF TSYL
HVAKIWFCFPLFREYLMSNGPVSVSKESSLHVL SKDGGGNVSIIVLGGAKEALEAHPGTFTLCIRQRKGF
VKMALTHGASLVPVFSFGENDLYKQINNPKG SWLRTIQDAMYDSMGVALPLIYARGIFQHYFGIMPYRKL
IYTVVGRPIPVQQILNPTSEQIEELHQTYLEELKKLFNEHKKGKYG IPEHETLVFK (SEQ ID NO:06)

Mouse DC2 nucleic acid sequence

ATGATGGTGCAGTTTCGCGCCACTCAACACCCCGCTGGCACGGTGCCTACAGACCGCTGCGGTGCTGCAGTGG
GTCCTGTCTCTTCTCTCTGCTCGTGCAGGTGTGCATTGGAATTATGGTGATGCTGGTCTGTACA ACTATTGG
TTCTTTTACATCCCATATCTGGTCTGGTTTTACTATGACTGGAGAACCCAGAGCAAGGAGGCAGAA GATGG
AACTGGGTCCAAAGCTGGCCTGTGTGGAAGTATTTTAAGGAGTATTTTCCAATCTGTCTTGTCAA AACGCAG
GATTTGGATCCGGGTACAATTATATATTTGGGTTTCAACCTCATGGAATATTCGTGCCTGGAGCCTTTGGA
AATTTTGTACAAAATACTCGGACTTCAAGAAGCTATTTCTGGCTTTACATCGTATCTCCACGTGGCCAAG
ATCTGGTTCTGTTTCCCGTTGTTCCGAGAATATCTGATGAGTAACGGGCCGGTTTCAGTGTCTAAGGAGAGT
TTGTCTCATGTGCTGAGCAAGGATGGAGGTGGCAATGTCTCAATCATTGTCTCTCGGAGGTGCAAAGGAGGCG
CTGGAGGCTCACCCAGGAACATTCAACCTGTGCATCCGCCAGCGCAAAGGGTTTGTTAAGATGGCCTTGACC
CATGGTGCCAGTTTGGTTCCAGTATTTTCTTTTGGTGAAAATGATCTATATAAGCAAATTAACAACCCCAA
GGCTCCTGGCTACGAACATACAAGACGCAATGTATGATTCAATGGGAGTAGCCTTGCCACTGATATATGCC
AGAGGAATTTTCCAGCACTACTTTGGCATAATGCCCTATCGGAAGCTGATCTACACTGTTGTTGGCCGCCCT
ATCCCTGTTTCAGCAGATTCTGAACCCGACCTCAGAGCAGATTGAAGAGCTGCATCAGACATACCTAGAGGAG
CTAAAGAAACTATTCAATGAACACAAAGGGAAATATGGGATTCCGGAGCACGAAACTCTGGTATTTAAATAA
(SEQ ID NO:05)

Human DC2 amino acid sequence

MKVEFAPLNIQLARRLQTVAVLQWVLSFLTGPMSIGITVMLIIHNYLFLYIPYLMWLYFDWHTPERGGRR
SSWIKNWT LWKHFKDYFPIHLIKTQDLDP SHNYIFGFHPHGIMAVGAFGNFSVNYSDFKDLFPGF TSYLH
VLPLWFVCPVFREYVMSVGLVSVSKKSVSYMVSKEGGNISVIVLGGAKESLDAHPGKFTLFIRQRKGFV
KIALTHGASLVPVVSFGENELFKQTDNPEGSWIRTQVQNKLQKIMGFALPLFHARGVFQYNFGLM TYRKAI
HTVVGRPIPVQRQLNPTQEQIEELHQTYMEELRKLFEHKGKYG IPEHETLVLK (SEQ ID NO:08)

Human DC2 nucleic acid sequence

CGTGGGTGCAGGCTGCAGTGGCTGGCGCCGTCTCGCCCGGCCAGGCCATGAAGGTAGAGTTTGCACCGCTC
AACATCCAGCTGGCGCGGCGGCTGCAGACGGTGGCCGTGCTGCAGTGGGTCTTTCTTTTCTTACAGGGCCG
ATGTCCATTGGAATCACTGTGATGCTGATCATACAACTATTTGTTCTTTTACATCCCTTATTTGATGTGG
CTTTACTTTGACTGGCATAACCCAGAGCGAGGAGGCAGGAGATCCAGCTGGATCAAAAATTGGACTCTTTGG
AAACACTTTAAGGACTATTTTCCAATTCATCTTATCAAACTCAAGATTTGGATCCAAGTCACAACTATATA
TTTGGGTTTCAACCCCATGGAATAATGGCAGTTGGAGCCTTTGGGAATTTTCTGTAAATTATTTGACTTC
AAGGACCTGTTTCTGGCTTTACTTCATATCTTCACGTGCTGCCACTTTGGTTCTGGTGTCTGTCTTTCGA
GAATATGTGATGAGTGTTGGGCTGGTTTCAGTTTCCAAGAAAAGTGTGTCTACATGGTAAGCAAGGAGGGA
GGTGGAAACATCTCTGTCTATTGTCTTGGGGGTGCAAAGAATCACTGGATGCTCATCTGGAAAGTTCACT
CTGTTTCATCCGCCAGCGGAAAGGATTTGTTAAAATTGCTTTGACCCATGGCGCCTCTCTGGTCCCAGTGGTT
TCTTTTGGTGAAAATGAACTGTTTAAACAACTGACAACCTGAAGGATCATGGATTAGAACTGTTTCAAGT
AACTGCAGAAGATCATGGGGTTTGCTTTGCCCTGTTTCATGCCAGGGGAGTTTTTTCAGTACAATTTTGGC
CTAATGACCTATAGGAAAGCCATCCACACTGTTGTTGGCCGCCGATCCCTGTTTCGTGAGTCTGAACCCG
ACCCAGGAGCAGATTGAGGAGTTACATCAGACCTATATGGAGGAACCTTAGGAAATTGTTTGAGGAACACAAA

20469407

FIG. 8B

Mouse DC3 amino acid sequence (partial sequence, about 100 amino acids gap in the center of the protein)

MKTEHLQSLSLQWPLSYVAMFWIVQPLLICLLFTPLWPLPTVYFVWLLLDWKTPDKGRRSDWVRNWNV
WNHIRDYFYPITILKTKDLSPESENYIMGVPHGLLTFGAFCNFCTEATGFSKTFPGITPHLATLSWFFKIP
IIRDYIMAKGLCSVSQASIDYLLSHGTGNLVGIPITVVGGEALPLQVKNPSP EIVDKYHALYMDALYKL
FEQHKVQYGCSTNTQKLIFL (SEQ ID NO:10)

Mouse DC3 nucleic acid sequence (partial sequence, about 100 amino acids gap in the center of the protein)

TTACCTCCCTCAGGGTCCTGGGCATCATGTCTTGCTCTATGAAGACTGAACACTTACAGAGTCTGAGCCTTC
TGCAGTGGCCCTTGAGCTACGTTGCCATGTTTTGGATTGTGCAGCCATTGTTAATTTGCCTATTGTTACAC
CCTTGTTGGCCGCTACCAACAGTTTACTTTGTCTGGTTACTTCTCGACTGGAAGACTCCAGATAAAGGTGGCA
GGCGTTTCAGACTGGGTACGGAAGTGAATGTCTGGAACCATCATCAGGGACTATTTCCCCATTACAATCCTGA
AGACTAAGGACCTGTACCTTCAGAGAACTACATCATGGGGGTCCACCCCATNGGTCTCCTGACCTTCGGTG
CCTTCTGCAACTTCTGCACTGAGGCCACAGGCTTCTCGAAGACCTTCCAGGCATCACTCCTCACTTGGCCA
CAC (SEQ ID NO:09)

Human DC3 amino acid sequence

MAFFSRLNLQEGLOTFFVLQWIPVYIFLVWILQPLFVYLLFTSLWPLPVLYFAWLFLDWKTPERGGRRSA
WVRNWCVWTHIRDYFYPITILKTKDLSPEHNYLMGVPHGLLTFGAFCNFCTEATGFSKTFPGITPHLATL
SWFFKIPFVREYLMAGVCSVSQPAINYLLSHGTGNLVGIVVGGVGEALQSVNNTTLLILQKRKGFVRTA
LQHGYLVPSYSFGENEVFNQETFPGETWLRFLQKTFQDTFKKILGLNFCTFHGRGFTRGSWGFLLPFNR
ITTVVGGEPLPIPRIKRPNQKTVDKYHALYISALRKLFDQHKVEYGLPETQELTIT (SEQ ID NO:12)

Human DC3 nucleic acid sequence

ATCAACTCAGCTTAAGAAGTTTTGGCCTTCTGGTTAGGCTTCTTGCCACAACAGAACAGCACCATAACCATG
GCTTTCTTCTCCCGACTGAATCTCCAGGAGGGCCTCCAAACCTTCTTTGTTTTGCAATGGATCCCAGTCTAT
ATATTTTTAGTTTGGATCTTGCAGCCATTGTTTCGTCTACCTGCTGTTTACATCCTTGTGGCCGCTACCAAGT
CTTTACTTTGCCTGGTTGTTCTTGGACTGGAAGACCCAGAGCGAGGTGGCAGGCGTTTCGGCCTGGGTAAGG
AACTGGTGTGTCTGGACCCACATCAGGGACTATTTCCCCATTACGATCCTGAAGACAAAGGACCTATCACCT
GAGCACAACCTACCTCATGGGGGTTACCCCCATGGCCTCCTGACCTTTGGCGCCTTCTGCAACTTCTGCACT
GAGGCCACAGGCTTCTCGAAGACCTTCCAGGCATCACTCCTCACTTGGCCACGCTGTCTTGGTTCTTCAAG
ATCCCCCTTTGTTAGGGAGTACCTCATGGCCAAAGGTGTGTGCTCTGTGAGCCAGCCAGCCATCAACTATCTG
CTGAGCCATGGCACTGGCAACCTCGTGGGCATTGTAGTGGGAGGTGTGGGTGAGGCCCTGCAAAGTGTGCC
AACACCACCACCTCATCTCCAGAAGCGCAAGGGGTTCTGTGCGCACAGCCCTCCAGCATGGGGCATACTT
GTCCCTTCATATTCCTTTGGTGAGAACGAAGTTTTCAATCAGGAGACCTTCCCTGAGGGCACGTGGTTAAGG
TTGTTCCAAAAAACCTTCCAGGACACATTCAAAAAATCCTGGGACTAAATTTCTGTACCTTCCATGGCCGG
GGCTTCACTCGCGGATCCTGGGGCTTCTGCCTTTCAATCGGCCCATACCCTGTTGTTGGGGAACCCCTT
CCAATTCCCAGGATTAAGAGGCCAAACAGAACAGTAGACAAGTATCACGCACCTACATCAGTGCCTTG
CGCAAGCTCTTTGACCAACACAAAGTTGAATATGGCCTCCCTGAGACCCAAGAGCTGACAATTACATAACAG
GAGCCACATTTCCCATTTGATCAACCCCCAAAGCCATGAGGGATCCAAGTAGAGCCACAGAAAAAGAAGAAAT
CCAGGAGAGGGAAAGATCGTAAGGATGAGAGAGGAGACCATCCAAGCCAGAAATTATTTAATAAATCAGAGT
TCTAGCAATAGAGTCC (SEQ ID NO:11)

20770-126900F

FIG. 8C

Human DC4 amino acid sequence

MLLPSKKDLKTALDVFAVFQWSFSALLITTTVIAVNLYLVVFTPYWVPTVLILTWLAFDWKTPQRGGRRF
TCVRHWRLWKHYSDYFPLKLLKTHDICTPSRNYILVCHPHGLFAHGWFHGFATEASGFSKIFPGITPYILT
LGAFFWMPFLREYVMSTGACSVSRSSIDFLLLTHKGTGMVIVVIGGLAECRYSLPGSSSTLVLKNRSGFVR
MALQHGVPILIPAYAFGETDLYDQHI FTGGGFVNRFQKWFQSMVHIYPCAFYGRGFTKNSWGLLPYSRPVT
TIVGEPLPMPKIENPSQEIVAKYHTLYIDALRKLFQHKTKFGISETQELEII (SEQ ID NO:014)

Human DC4 nucleic acid sequence

AATTCGGCTTACTCACTATAGGGCTCGAGCGGCCCCCGGGCAGGTGCCGACTTCATTTCCAAGTCTGCAC
ACAATGCAGGCAGTAGCCATGCCTGACAGCCACATGACAGATACTACACCGCTGAATGTGCTCTAACCCCT
GGACTTGGCATTGCCCCCTACTGTTGAGGAAGCAGTGCGTTTTTCTCCAGTCTTTTCAGGTCCCTTCACCAG
GGAACCATTAACTTGTGCATCAGAACAAGGACATTTCTTACATTCTGCAAAACACAGTCCCTTCAGTTT
ACTCTTTTTTTGAGGGGGGGGCGCGGGGAACGGAGTCTCGCTCTGTGCGCCAGGCTGGAGTGCAATGGTG
CAATCTCAGCTCACTGCAACCTCTGCCTCCCAGGTCCAAGCGATTCTCTGCTCAGCTCCCGGGTAGC
CGGGACTACAGGCGCCTGCCACCACGCCCCGCTAATTTTTGTATTTTAGTAGAGACGAGGTTTCGCCGT
GTTGGCAGGCTGGTCTTGGAACCTCTGACCTCAGGTGATTTACTCGCTCGGCTCCCAAAGTGCTGGGA
TTACAGGCATGAGCCACTGTGCCCAGTCACAAGTTTTTATTTTAGCCATTTTGATAAGTGTGAAGTTCCC
TGATGGCTAATGATGTTCTTTTTCCATGTGCTCATTTGTCTATGTCAGAGAAAGATTTGGAGAGGAG
GACGTGAATTGGAGGAAAACCTGTTCCAGGATTCCCCACCTCTGGTGGCCCCACCGCTGGCTCACTGCCATT
GACCACACTGCAGGCAGAGCCTAGTGAGTGCTGGAGCAGGGCCCAGAGAGGAGAGGGCTTACAGTGTA
ATTGAGCTCAGCTGGGGAAGAAGACACCTTCCCTTCTAGACCTGAATCGGGTTCCCAAGCAACCACTGTG
ATTGCTGTCAACCTCTACCTGGTGGTGTTCACACCATACTGGCCTGTCACTGTGCTTATTCTTACCTGGC
TGGCTTTTGACTGGAAGACCCCTCAGCGAGGCGGCGCGGTTTACCTGTGTGAGGCACTGGCGCCTGTG
GAAACACTACAGCGATTATTTCCCTCTCAAGCTTCTGAAGACTCATGACATCTGCCCCAGCCGCAACTAC
ATCCTCGTCTGCCACCCTCATGGGCTCTTTGCCCATGGATGGTTTGGCCACTTTGCCACAGAGGCCTCAG
GCTTCTCCAAGATATTTCTGGCATCACCCCTTACATACTCACACTGGGAGCCTTTTTCTGGATGCCTTT
CCTCAGAGAATATGTAATGTCTACAGGGGCTGCTCTGTGAGTCGATCCTCCATTGACTTTCTGCTGACT
CATAAAGGCACAGGCAACATGGTCATTGTGGTGATTGGTGGACTGGCTGAGTGAGATACAGCCTGCCAG
GTTCTTCTACCCTGGTGTGGAAGAACCGGTCTGGCTTTGTGCGCATGGCCCTTCAGCATGGGGTGCTCT
AATACCTGCCTATGCCTTTGGGGAGACGGACCTCTATGATCAGCACATTTTCACTCCTGGTGGCTTTGTC
AACCGCTTCCAGAAGTGGTTCCAGAGCATGGTACACATCTACCCTTGTGCTTTCTATGGACGTGGCTTCA
CCAAGAAGCTCCTGGGGCCTTCTGCCCTATAGTCGGCCTGTAACCACCATCGTCGGGGAGCCTCTACCAAT
GCCCAAGATTGAGAATCCAAGCCAGGAGATCGTGGCTAAATATCACACACTCTATATTGATGCCCTACGT
AAACTGTTTGACCAGCATAAGACCAAGTTTGGTATCTCAGAGACCCAGGAGCTGGAGATAATTTGACAGA
CATCCCCAGTAGCCTTACCCTGGCTGGAAGGTATGGATGGACCCAGTGAGA (SEQ ID NO:013)

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FIG. 8D

Human DC5 amino acid sequence

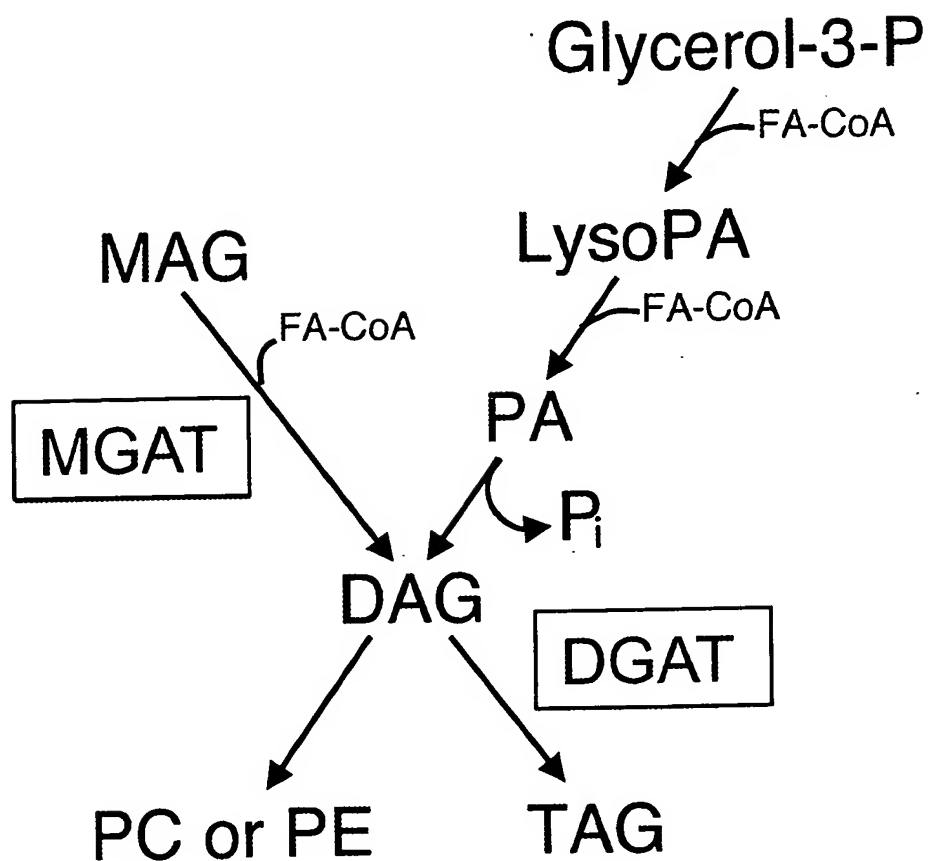
MVEFAPLFVPWERRRLQTLAVLQFVFSFLALGKICTVGFIALLFTRFWLLTVLYAAWYLDLDRDKPRQGGRH
IQAIRCWTIWKYMKDYFPIQLVKTAELDPSRNYIAGFHPHGVLAVGAFANLCTESTGFSSIFPGIRPHLM
MLTLWFRAPFFRDYIMSAGLVTSEKESAAILNRKGGNLLGIIVGGAQEALDARPGSFLLLLNRKGFV
RLALTHGAPLVPIFSFGENDLFDQIPNSSGSLWRYIQNRLQKIMGISLPLFHGRGVFQYSFGLIPYRRPI
TTVGKPIEVQKTLHPSEEEVNQLHQHYIKELCNLFEAHKLKFNIPADQHLEFC (SEQ ID NO:16)

Human DC5 nucleic acid sequence

CCACAGCAGAGCTCACAGAACCTGCGGGAGCCAGGCTGACCCGCCAGCATGGTAGAGTTCGCGCCCTTGTTT
GTGCCGTGGGAGCGCAGGCTGCAGACACTTGCTGTCTTACAGTTTGTCTTCTCCTTCTTGCCACTGGGTAAG
ATCTGCACTGTGGGCTTCATAGCCCTCCTGTTTACAAGATTCTGGCTCCTCACTGTCCTGTATGCGGCCTGG
TGGTATCTGGACCGAGACAAGCCACGGCAGGGGGGCGGCACATCCAGGCCATCAGGTGCTGGACTATATGG
AAGTACATGAAGGACTATTTCCCCATCCAGCTGGTCAAGACTGCTGAGCTGGACCCCTCTCGGAACCTACATT
GCGGGCTTCCACCCCATGGAGTCCTGGCAGTCGGAGCCTTTGCCAACCTGTGCACTGAGAGCACAGGCTTC
TCTTCGATCTTCCCCGGTATCCGCCCCCATCTGATGATGCTGACCTTGTGGTTCCGGGCCCCCTTCTTCAGA
GATTACATCATGTCTGCAGGGTTGGTCACATCAGAAAAGGAGAGTGCTGCTCACATTCTGAACAGGAAGGGT
GGCGGAAACTTGCTGGGCATCATTGTAGGGGGTGCCAGGAGGCCCTGGATGCCAGGCCCTGGATCCTTCACG
CTGTTACTGCGGAACCGAAAGGGCTTCGTAGGCTCGCCCTGACACACGGGGCACCCCTGGTGCCAATCTTC
TCCTTCGGGGAGAATGACCTATTTGACCAGATTCCCAACTCTTCTGGCTCCTGGTTACGCTATATCCAGAAT
CGGTTGCAGAAGATCATGGGCATCTCCCTCCCACTCTTTCATGGCCGTGGTGTCTTCCAGTACAGCTTTGGT
TTAATACCCTACCGCCGCCCATCACCCTGTGGGGAAGCCCATCGAGGTACAGAAGACGCTGCATCCCTCG
GAGGAGGAGGTGAACCAGCTGCACCAGCATTATATCAAAGAGCTGTGCAACCTCTTCGAGGCCACAACTT
AAGTTCAACATCCCTGCTGACCAGCACTTGGAGTTCTGCTGA (SEQ ID NO:15)

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FIG. 9



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FIG. 10A

```

mMGAT1  MMVEFAPLN-----TPLAR-----
mDGAT2  MKTLIAAYSGVLRGERRAEAAARSENKNKGSALSREGSGRWGTGSSILSALQDIFSVTLN
      * . :*. .                :.*:*

mMGAT1  -----CLQTAAVLQWVLSFLLLQVCIGIMVMLVLVNYWFLYIPYLVWFYYDWRTPEQG
mDGAT2  RSKVEKQLQVISVLQWVLSFVLGVACSVILMYTFCTDCWLI AVLFTWLAFDWNTPKKG
      ** . :*****:* . * *:: . : *:: : *::* :*:***:*

mMGAT1  GRRWNWVQSWPVWKYFKEYFPICLVKTQDLDPGHNYIFGFHPHGIFVPGAFCN[F]ECTKYSD
mDGAT2  GRRSQWVRNWAVWRYFRDYFPIQLVKTHNLLTTRNYIFGYHPHGIMGLGAFCN[F]ESTEATE
      *** :*:*. :*:***:* :***** :***:* . :*****:*****: *** **.*: :

mMGAT1  FKKLFPGFSTSYLHVAKIWFCFPLFREYLMSNGPVSVSKESLSHVLSKDGGGN[F]SIIVLGG
mDGAT2  VSKKFPGIRPYLATLAGNFRMPVLREYLMSGGICPVNRDTIDYLLSKNGSGN[F]AIIVVGG
      ..* ***: .** .      * :*:*****.* .*::*:*:*****:***.* ***:*

mMGAT1  AKEALEAHPGTFTLCIRQRKGFVKMALTHGASLVPVFSFGENDLYKQINNPKGSWLRTIQ
mDGAT2  AAESLSSMPGKNAVTLKNRKGFKLALRHGADLVPTYSGFGENEVYKQVIFEEGSWGRWVQ
      * *::*. :*. : : :*****:* * **.***.*:*****:*****: :*** * :

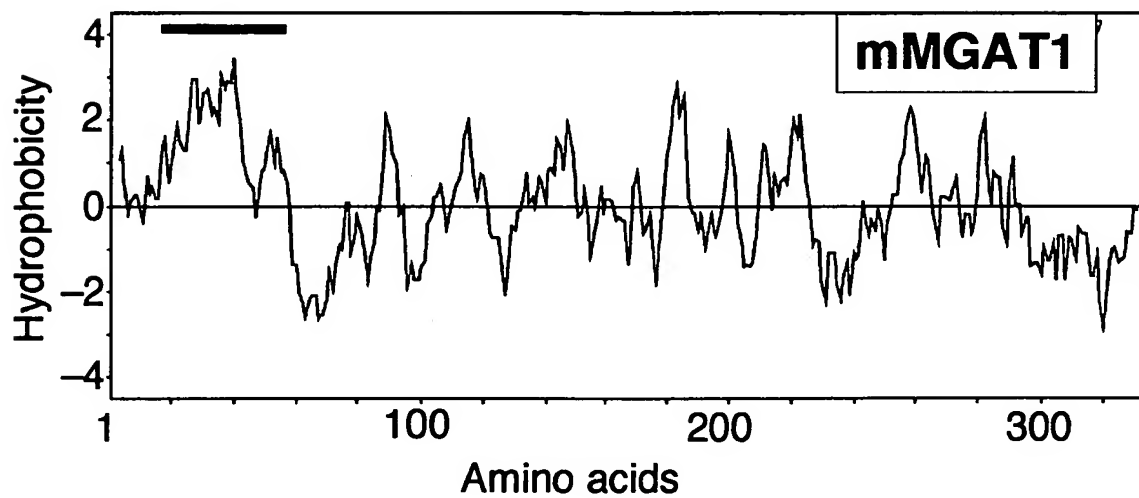
mMGAT1  DAM[F]DSMGVALPLIYARGIFQ-HYFGIMPYRKLIYTVVGRPIPVQQILNPTSEQIEELHQ
mDGAT2  KKFQKYIGFAPCIFHGRGLFSSDTWGLVPYSKPITTVVGEPI TVPKLEHPTQKDIDLYHA
      . : . :*. * :*:***.* . :*:*** * * *****.* : : *::*: : *

mMGAT1  TYLEELKKLFNEHKGKYGIPHEHETLVFK
mDGAT2  MYMEALVKLFDNHKTKFGLPETEVLEVN
      *:* * ***:*** *::*** *.* .:

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204470" 42594001

FIG. 10B



20040710 12694001

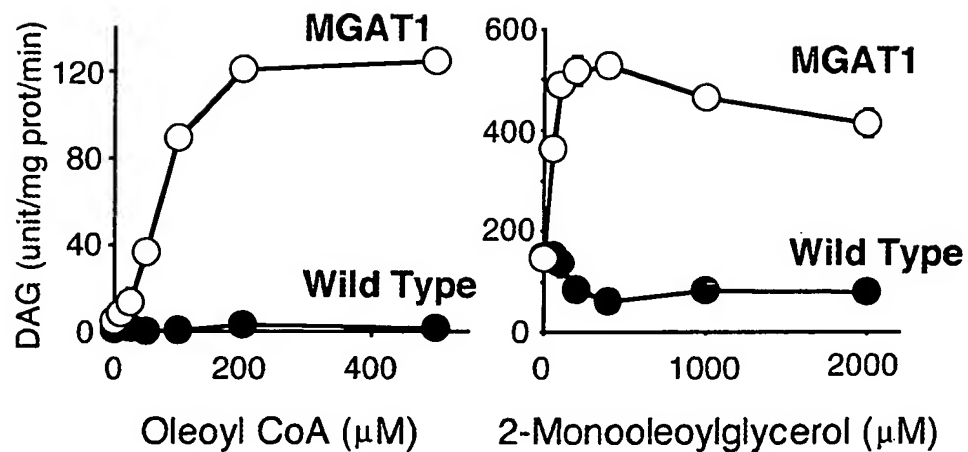


FIG. 11

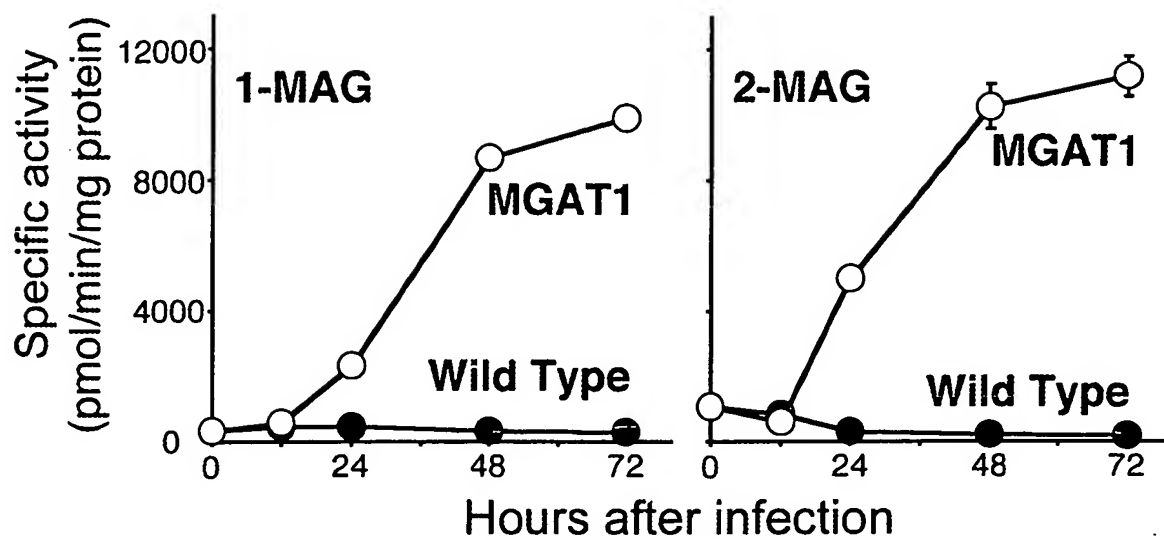


FIG. 12

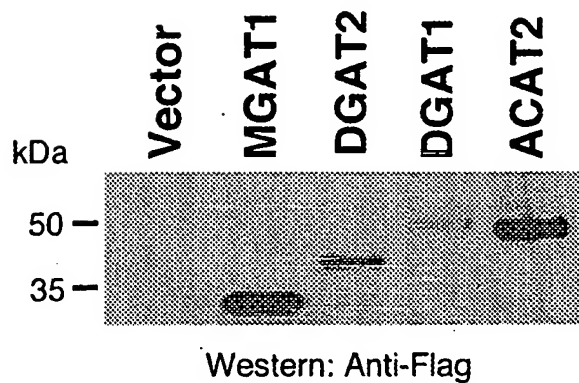
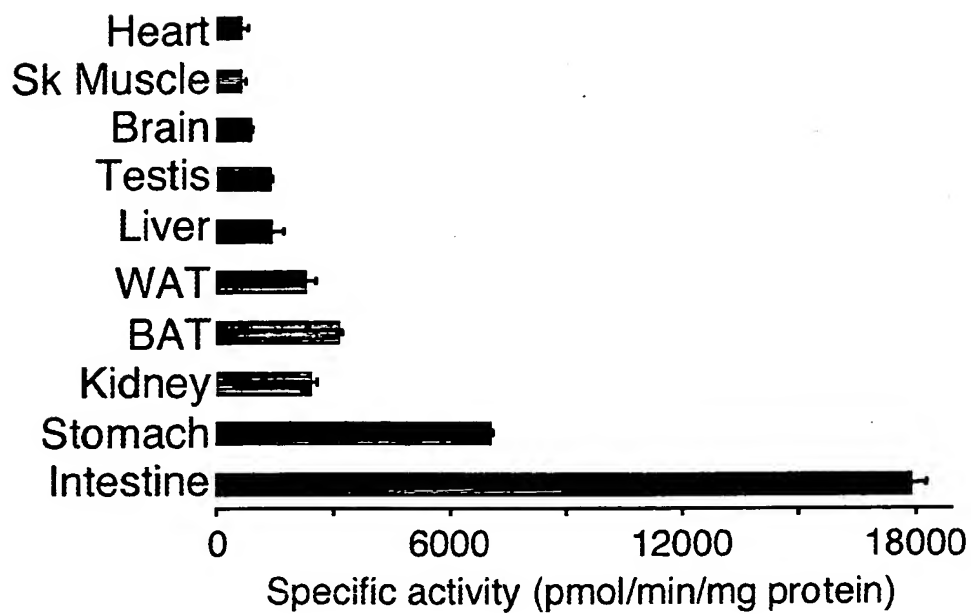


FIG. 13

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FIG. 14



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